

ATTO Product catalogue

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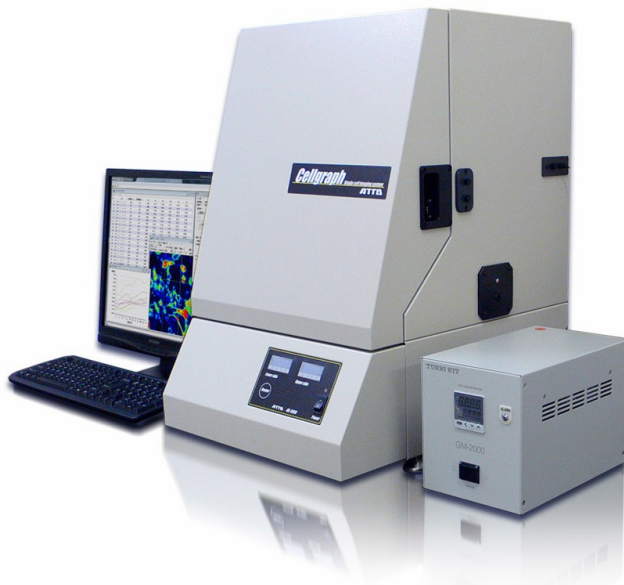
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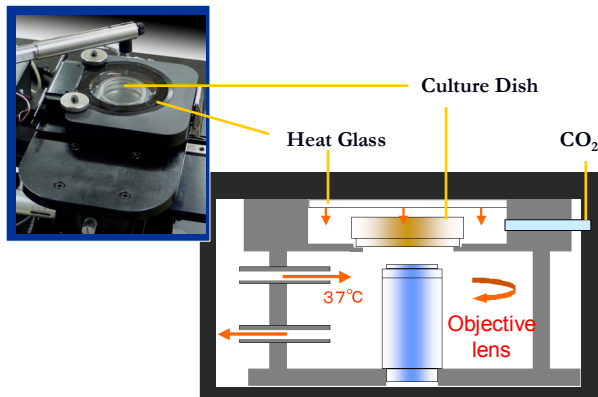
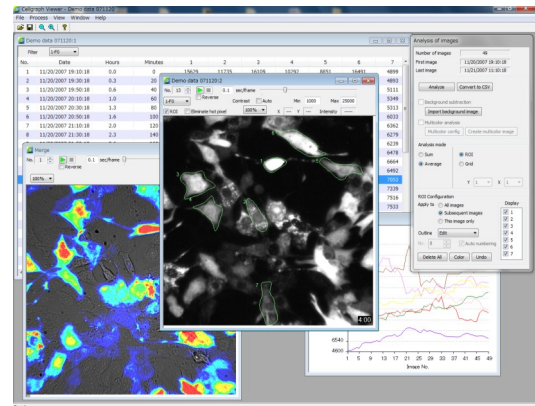


Specification

- Detector:** Back-illuminated EM CCD (-80°C)
Down to -90°C (water cooling, optional)
- Pixels:** 512 × 512
- Objective lens:** ×4, (optional ×10, 20, 40, 60)
- Stage :** X-Y-Z axis : Manual
Z axis : Motorized (external control)
- Sample container :** 35mm dish
- Temperature:** room temperature +5°C to 45°C
- CO₂ (option):** Humidifying Unit, CO₂ gas mixer
- Lighting:** White LED for bright field image
Blue LED for GFP excitation
- Filter:** 525(GFP), 560, 620 nm long pass filter
- Imaging modes:** Live/Interval/Stage control/
Combination/Background
- Filter Switch:** Automatic control of set filter
- Exposure time:** 30 msec to 90 minutes

Cellgraph is an imaging system designed to detect extremely weak bioluminescent signals from a single cell. In combination with luciferase markers, Cellgraph can visualize the cell dynamics - time dependent changes of transcriptional activities in individual cells and localization to inner cell components (organelles).

Cellgraph provides a variety of advanced features to support live-cell studies; The ultrasensitive cooled and back-illuminated EMCCD (Electron Multiplying CCD) offers single photon sensitivity, certified with a patented procedure to measure total luminescence intensity as photon counts. The incubation system enables long-term culture under controlled temperature and 5% carbon dioxide gas circulation. The multicolor detection system is equipped for multi reporter assay with up to 2 different color filters(560LP, 620LP), which enhances sensitivity to extra weak bioluminescence and gives an internal standard basis.



The temperature of the 35 mm culture dish can be kept constant at 37 degrees. The capability to continue the culture for an extended period is also made possible because there is an introduction port for CO₂.

*CO₂ gas injection unit is optional accessory.

References

H. Hoshino, Y. Nakajima and Y. Ohmiya, Luciferase-YFP fusion tag with enhanced emission for single-cell luminescence imaging. *Nature Methods*, 4 (8), 637-639 (2007)

C. Wu, K. Mino, H. Akimoto, M. Kawabata, K. Nakamura, M. Ozaki and Y. Ohmiya, In vivo far-red luminescence imaging of a biomarker based on BRET from *Cypridina* bioluminescence to an organic dye. *Proc. Natl. Acad. Sci. U.S.A.*, 106(37), 15599-15603 (2009)

Y. Nakajima, T. Yamazaki, S. Nishii, T. Noguchi, H. Hoshino, K. Niwa, V. R. Viviani and Y. Ohmiya, Enhanced beetle luciferase for high-resolution bioluminescence imaging. *PLoS One*, 5(4), e10011 (2010)

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X. Li, Y. Nakajima, K. Niwa, V.R. Viviani and Y. Ohmiya, Enhanced red-emitting railroad worm luciferase for bioassays and bioimaging. *Protein Sci.*, 19, 26-33 (2010)

Y. Nakajima and Y. Ohmiya, Bioluminescence assays: multicolor luciferase assay, secreted luciferase assay and imaging luciferase assay. *Expert Opin. Drug Discov.*, 5(9), 835-849 (2010)

H. Kwon, Y. Ohmiya, K. Honma, S. Honma, T. Nagai, K. Saito and K. Yasuda, Synchronized ATP oscillations have a critical role in prechondrogenic condensation during chondrogenesis. *Cell Death Disease*, 3, e278 (2012)

Real-time Reporter Assay System **AB-2550 Kronos Dio**



Specification

- Measurement Container :** 35mm dish
- Number of Samples:** 8 dishes Max.
- Temperature:** Peltier device and air circulation room temperature -5°C to 45°C
- CO₂ Gas:** 5% in density.
Control with sensor and regulator
- Detector:** Photomultiplier Tube
- Measurement Method:** Photon counting
- Wave length:** 350nm to 670nm
- Time:** 1 to 60sec / from 1 to 60 min
- Filters:** F0 (none), F1 (560nm), F2 (620nm)

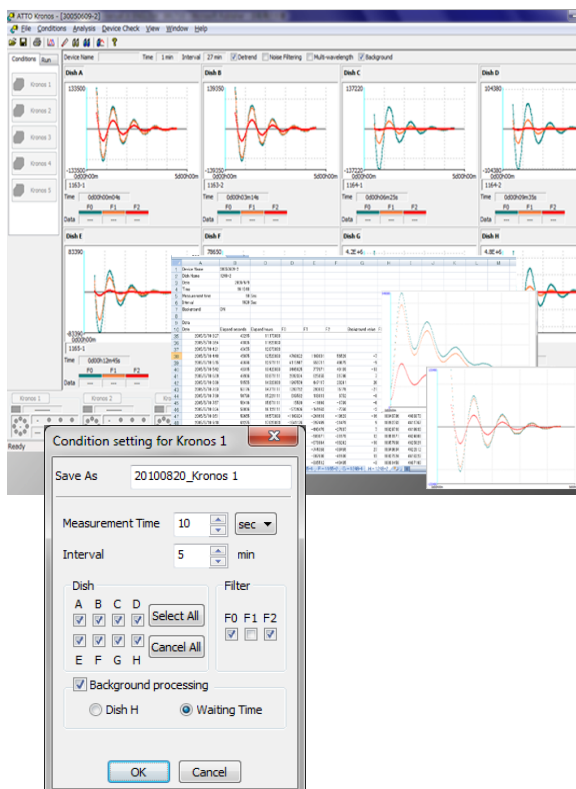


AB-2550 Kronos dio is luminometer equipped PMT (Photomultiplier Tube) as a detector, and it is suitable for real time monitoring of gene expression in living cell and tissue culture samples over a long period (“real time reporter assay”). Sample container is a 35mm culture dish and up to 8 dishes can be applicable.

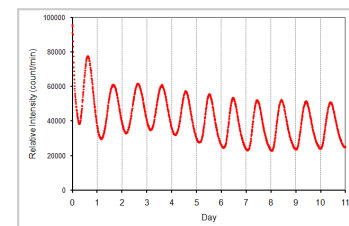
Long period cultivation under observation can be kept very stably by complete environment (temperature, CO₂ gas and humidity control) with compact built-in incubator.

Besides, because an optical filters are built in, it is possible to monitor up to three kinds of gene expression using different luciferases generating different colors luminescence.

Representative applications are Real-time Reporter Assay of living cells and Tissue section, Simultaneous monitoring of multiple circadian gene expression, Analysis of RNA expression & Protein transport, Drug stimulation response, Time-dependent profiles of transfection efficiency, Analysis of apoptosis, etc.



A transgenic mouse including luciferase gene with a promoter of clock gene (*Per 1*) related to circadian rhythm was added with luciferase gene was kept with the period from 06:00 hrs to 18:00 hrs as the light period, and its suprachiasmatic nucleus (SCN) was cut into 300 μm slices using a micro slicer and the slices were placed on culture inserts (Millicell CM) and monitored for 11 days. Extremely stable circadian rhythm was detected.



Data Supported: Dr. Ken-ichi Honma
Dept. of physiology, Hokkaido University Graduate School of Medicine.

Reference: Shin-ya Nishide , Sato Honma , Yoshihiro Nakajima , Masaaki Ikeda , Kenichi Baba, Yoshihiro Ohmiya and Ken-ichi Honma (2006) New reporter system for *per1* and *Bmal1* expressions revealed self-sustained circadian rhythms in peripheral tissues. *Gene to Cells*, 11, 1173-1182

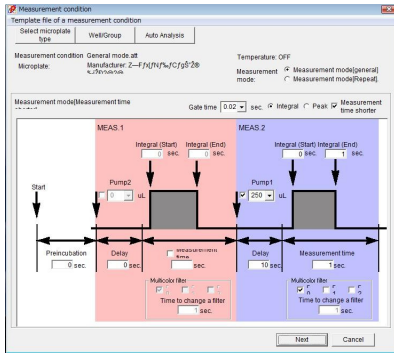
Microplate Luminometer **AB-2350 Phelios**



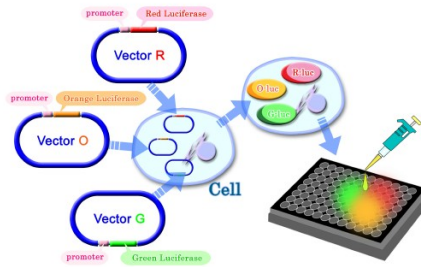
Specification

Detector: Photomultiplier Tube
 96 / 384 well plate format
 Spectral range: 350 to 670 nm
 High sensitivity: 10^{-21} moles luciferase, 10^{-18} moles ATP
 Repeat function: 0.1 to 60sec/well, Max 168 hours or 1000times
 One or Two Injectors: 20 to 250uL
 Heater temperature range: Room Temp +5 to 40 degreeC

Phelios is a 384/96 microplate luminometer with a multi-color filter system, which enables multi-reporter gene assay using different colors luminescence generating luciferases. Phelios also would offer a wide range of application including ATP assay, ELISA, superoxide detection, and estimation of anti-oxidative activity, etc. in cell biology, physiology, microbiology, food sanitation, environmental assessment, etc.



Multi-Colored Luciferase Assay



Three kinds of luciferase are synthesized in proportion to the amount of the transcriptional activity of introduced promoter 1 to 3.

One kind of luminescence substrate is added to three kinds of luciferase. The intensity of each color luminescence proportional to the amount of transcriptional activity of the introduced promoter 1 to 3 measured by color separation.

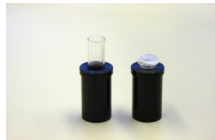
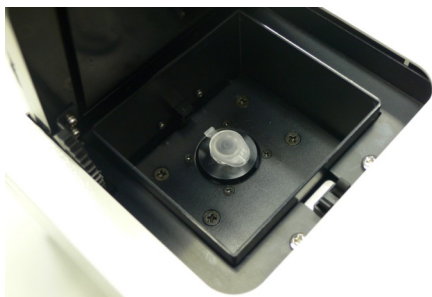
Single tube Luminometer **AB-2270 Luminescencer Octa**

Specification

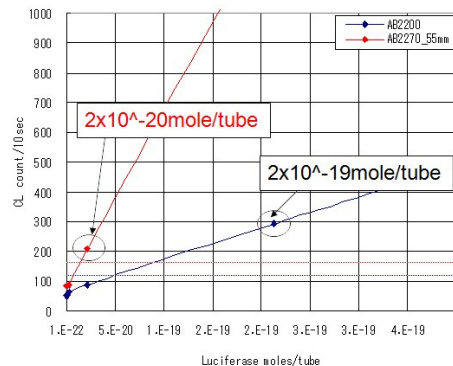
Detector: Photomultiplier Tube
 Spectral range: 350 to 670 nm
 High sensitivity: 10^{-21} moles luciferase, 10^{-18} moles ATP
 Built-in plunger type injectors: 25 to 300uL
 Time: 1-2000 sec (1-600 sec for multicolor assay)



A single-tube type personal luminometer equipped with a multicolor detection system. A compact body houses a printer and an injection pump. Easy to operate and applicable to various types of analysis such as ATP assay, measurement of superoxide, antioxidative activity, chemiluminescent enzyme immunoassay, luciferase assay including multi-reporter gene assay using multiple-color luminescence reagents, etc.



1.5mL micro tubes & Φ 12 x 55mm test tube



Ultrahigh sensitive spectrophotometer *AB-1850 LumiFLspectrocapture*



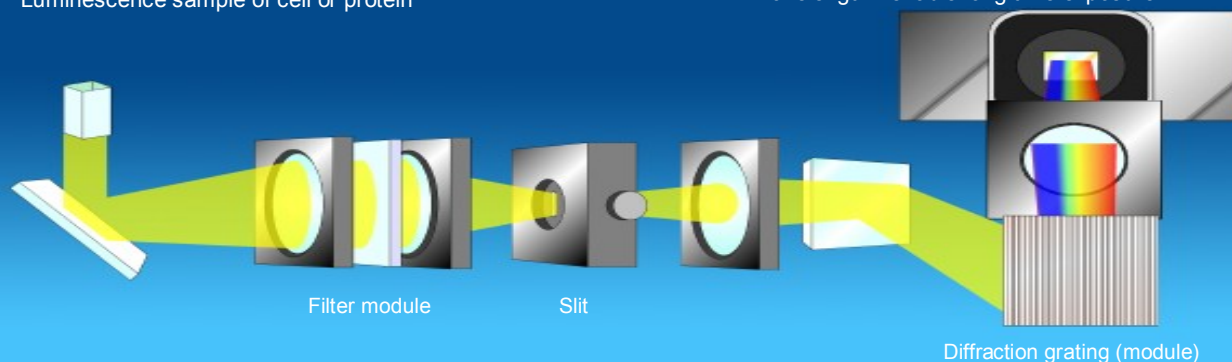
Specification

Measurement wavelength: 400 to 800nm
 Wavelength resolution: 1.8nm
 Reciprocal linear dispersion: 60nm/mm
 Slit width: 0.01mm - 5mm (11 steps)
 Exposure time: 1/30sec. - 60min
 Repeatability ± 0.6 nm
 Light receiving part: Electronic cooled CCD

A high-spec spectrometer equipped with thermoelectrically cooled CCD to measure luminescence and fluorescence spectra over whole wavelength range simultaneously. LumiFLspectrocapture can detect ultra low intensity light and can be used in studying fluorescence resonance energy transfer (FRET) and bioluminescence resonance energy transfer (BRET).

■ Sample cell: Quartz cell or PCR tube
 Luminescence sample of cell or protein

■ Detection module: CCD
 All wavelength - enable long time exposure



Food Process Monitor *Fermograph / Versa-Logger*



AF-1101 Fermograph II-W

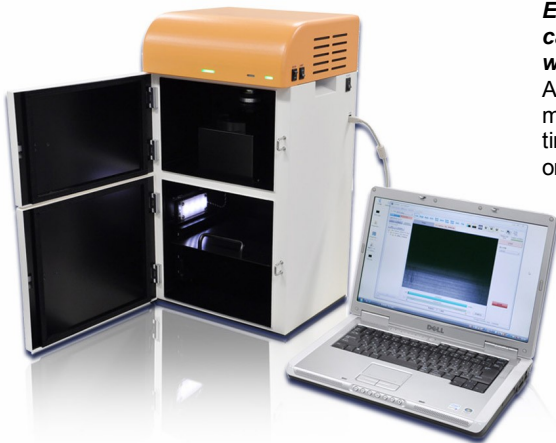
Fermograph II monitors volume of gas produced by yeast leavening during bread making process. It can also be used to monitor fermentation process of alcoholic beverage like Japanese Sake, or bio-ethanol. Gas production is related to the fermentation kinetics of the yeast strain, provides some information on characteristics as bread dough quality, freeze-thaw stability, alcohol productivity, etc. of the strain. Fermograph II quantifies the gas volume as total (accumulated) and production rate at a user-set interval, stores the data, and export CSV data for spreadsheet calculation.

AF-1700 Versa-Logger

Versa-Logger measures power consumption of a mixer during bread dough mixing. Mixer power consumption is closely related to the rheological change of the sample dough. Data calculating options includes moving average, max and min curves, peak detection, 1st and 2nd differential. Data export to CSV also available.



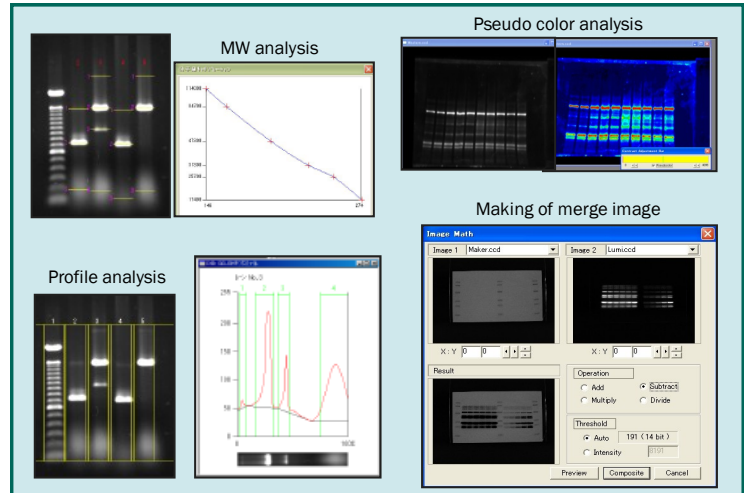
Chemiluminescence Imaging System **AE-9300 Ez-Capture MG**



Ez-Capture is designed to offer a high S/N capture with thermoelectrically cooled CCD, and PC integrated operation with USB connection, which make the analysis workflow simple, fast, and highly cost-effective. Automatic Exposure mode optimizing the luminescent image rapidly and SUM mode integrating extra weak light signals from the sample over long exposure time are available. Fluorescent image can be captured in combination with UV or Visirays - LED illuminator (optional).

EzWestLumi

Chemiluminescent substrate for HRP

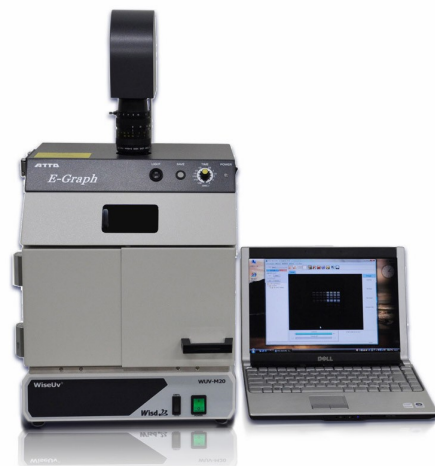


CS Analyzer 3 for Windows

CS Analyzer is a versatile image analysis software for electrophoresis patterns. This software can be used not only in combination with ATTO E-graph gel documentation systems and Ez-Capture imaging system, but also with a variety of images of other sources i.e. an image scanner, networks. It can handle various formats of images including 8 bit TIFF/BMP/JPEG or 16 bit TIFF, etc. and provides densitometry measurement of zone/area/spot, normalization of distorted images, image conversion, etc. CS Analyzer is included in Ez-Capture system.

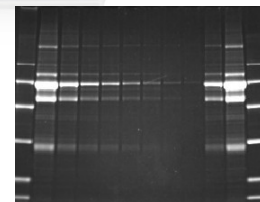
Gel Documentation System (UV, Fluorescence) **AE-9000 E-Graph**

E-Graph is an imaging device equipped with a highly sensitive CCD camera, designed to use with a Windows PC. E-Graph provides simple and quick gel documentation procedure with 14-bit high resolution image data. The sample gel image captured is directly transferred through an USB cable to the connected PC, and analyze it. In live mode, it can adjust and optimize a sample image with iris, zoom and other functions for photographing.



AE-6935B/GS/GL VISIRAYS

VISIRAYS is a LED illuminator to excite fluorescence from proteins/nucleic acids with visible light at blue(B)/green(short-GS)/green(long-GL) region of wavelength.



Photographed DNA pattern

ATTO Electrophoresis System

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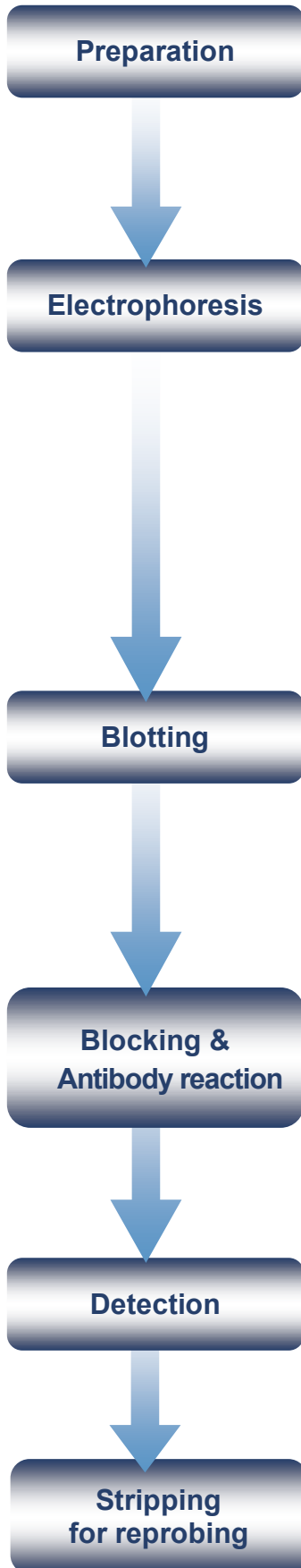
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Western Blotting Workflow with ATTO product



SDS Sample preparation solution Kit

AE-1430 EzApply **1**

Buffer for SDS-PAGE

AE-1410 EzRun **2**

AE-1412 EzRun C+ **3**

Protein molecular weight marker

AE-1440 Ez Standard **4**

AE-1450 Ez Standard Prestain Blue **5**

Precast Gels

e-PAGEL (ATTO mini size 8.5x9cm) : 5-20%, 10-20%, 7.5%, 10%, 15%...

c-PAGEL (ATTO compact size 6x6cm) : 5-20%, 10-20%, 7.5%, 10%...

Vertical electrophoresis equipment

AE-6530 / WSE-1100 / AE-6500 / AE-7350 / WSE-1020 / WSE-1500.....

Power supplies

AE-8135 / 8155, WSE-3200 / 3500...



Western Blotting solution Kit

AE-1465 EzFastBlot **6**

Semidry Blotter

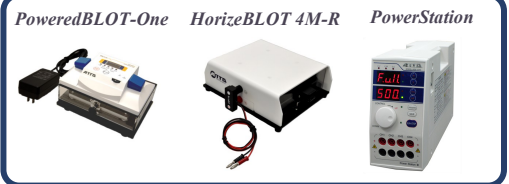
WSE-4020 HorizeBLOT 2M-R

WSE-4040 HorizeBLOT 4M-R

WSE-4110 PoweredBLOT-One

Power supplies

AE-8135 / 8155, WSE-3200 / 3500...



Blocking solution

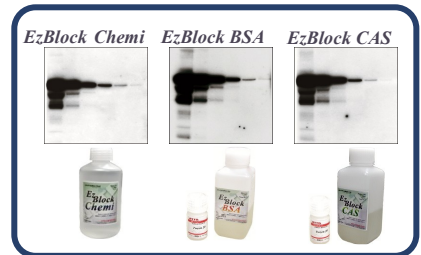
AE-1475 EzBlock Chemi **7**

AE-1476 EzBlock BSA **8**

AE-1477 EzBlock CAS **9**

Wash solution(TBS solution)

AE-1480 EzWash **10**



Substrates for HRP

AE-1495 EzWestLumi **11**

WSE-7120 EzWestLumi plus **12**

AE-1490 EzWestBlue **13**

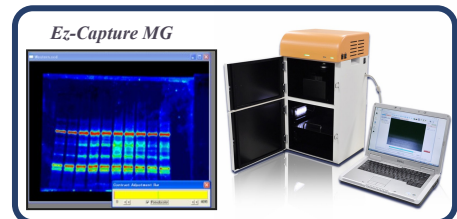
Cooled CCD Gel Imaging System

AE-9300 Ez-Capture MG



Stripping Reagent

WSE-7240 EzReprobe **14**



Reagents

ATTO reagents bring you a better result and more convenient way in your experiments. Widely applicable and superior quality of reagents offer confidence and advanced application in your process. For western blotting, ATTO reagent supports all your process effectively in all steps.



	USE	Type	Product Name	
4	Protein molecular weight marker	AE-1440	EzStandard	
	Protein molecular weight marker : 2 bottles	AE-1440-2	EzStandard (2 bottles)	
5	Prestained protein molecular weight marker	AE-1450	EzStandard PrestainBlue	
1	SDS sample preparation solution Kit	AE-1430	EzApply	
	Sample-extraction, sample preparation solution for 2D electrophoresis	AE-1435	EzApply 2D Kit	
2	Buffer for SDS-PAGE	AE-1410	EzRun	
3	Buffer for high resolution SDS-PAGE electrophoresis	AE-1412	EzRunC+	
	CBB staining solution (Methanol needless)	AE-1340	EzStain Aqua	
	Reverse staining kit	AE-1310	EzStain Reverse	
	Silver staining kit	AE-1360	EzStain Silver	
	Centrifuge Tube filter Device	AB-1171	ATTOPREP MF	
	Anti-crack reagent for gel dry	AE-3780	Anti-Crack	
6	Western blotting solution kit	AE-1465	EzFastBlot	NEW!!
7	Blocking solution (Chemical reagent)	AE-1475	EzBlock Chemi	NEW!!
8	Blocking solution (BSA)	AE-1476	EzBlock BSA	NEW!!
9	Blocking solution (Casein)	AE-1477	EzBlock CAS	NEW!!
	Blocking solution (Trial all kinds)	AE-1478T	EzBlock TrialKit	NEW!!
10	Wash solution (TBS solution)	AE-1480	EzWash	
13	Coloring Substrate for HRP	AE-1490	EzWestBlue	
11	Luminescence Substrate for HRP	AE-1495	EzWestLumi	NEW!!
12	High-sensitive Luminescence Substrate for HRP	WSE-7120	EzWestLumi plus	NEW!!
14	Western Blot stripping buffer	WSE-7240	EzReprobe	NEW!!
	SDS Removal reagent	AE-1390	SDS-eliminant	NEW!!



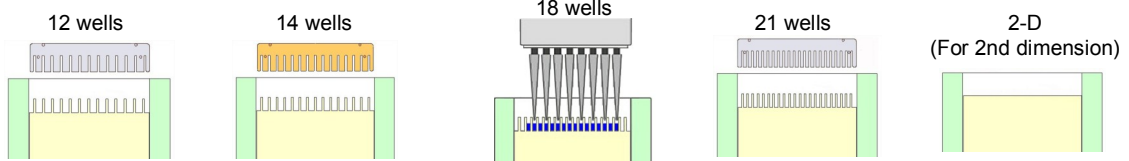
PAGEL
c-Pagel, e-Pagel



AgarGEL

Gel size	c-Pagel		e-Pagel			Pagel	Gel concentration (%)	
	ATTO compact size		ATTO Mini-slab size			ATTO Mini-slab size		
Type (Code No.)	12 wells	2-D	14 wells	18 wells	2-D	12 wells		
		8 microL/well	No well	24 microL/well	15 microL/well	No well		28 microL/well
		-	-	-	-	-		NPU-5L (2331192)
		C7.5L (2331610)	CD7.5L (2331680)	E-T7.5L (2331800)	E-R7.5L (2331700)	E-D7.5L (2331940)		NPU-7.5L (2331153)
		C10L (2331620)	CD10L (2331650)	E-T10L (2331810)	E-R10L (2331710)	E-D10L (2331910)		NPU-10L (2331145)
		C12.5L (2331630)	CD12.5L (2331660)	E-T12.5L (2331820)	E-R12.5L (2331720)	E-D12.5L (2331920)		NPU-12.5L (2331146)
		C15L (2331640)	-	E-T15L (2331850)	E-R15L (2331750)	-		NPU-15L (2331148)
		C15S (2331691)	-	E-T15S (2331860)	E-R15S (2331760)	-		-
		-	-	-	-	-		NPG-310L (2331194)
		C520L (2331600)	CD520L (2331670)	E-T520L (2331830)	E-R520L (2331730)	E-D520L (2331930)		NPG-520L (2331150)
		-	-	-	-	-		SPG-520L (2331120)
		-	-	E-T1020L (2331840)	E-R1020L (2331740)	-		NPG-1020L (23331122)

Well type



ATTO Compact Gel Size chambers



AE-7350 CompactPAGE

Compact-size PAGE system including a power supply. The apparatus body are very compact and easy-to-handle.
The gel size: 60mm x 60mm x 1 gels
Buffer volume: 90mL
Electrophoresis time: 30 minutes.



AE-7340 Compact PAGE (Twin)

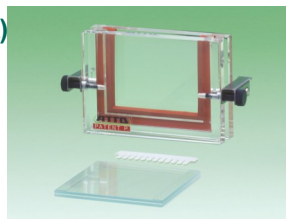
Compact-size PAGE chamber separated from a power supply.
Gel size: 60 x 60 x 0.75mm x 2 gels
Buffer volume: 140mL
Electrophoresis time: 30 minutes.

NEW!!



WSE-1020 CompactPAGE (Twin-R)

Compact-size PAGE system including a power supply.
Gel size: 60 x 60 x 0.75 x 2 gels
Buffer volume: 140mL
Electrophoresis time: 30 minutes.



AE-7310 Compact Gel Caster

Gels can be easily prepared in the box-shaped main unit. 0.75 mm Compact Multi Gel Cast Including 2 pairs of glass plates, 2 combs, 3 divider plate, and 1 dummy plate. Ready to cast 2 12-well gels

ATTO Mini Gel Size chambers

NEW!!



WSE-1100 mPAGE(PageRun-R)

A mini PAGE system with a built-in power supply. High resolution separation of protein and nucleic acid.
Gel size: 90 x 80 x 1mm x 2 gels
Buffer volume: 500mL



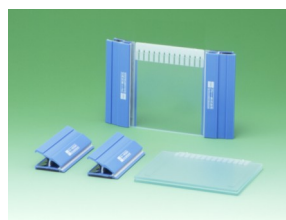
AE-6500 Dual Mini Chamber

High resolution separation of protein and nucleic acid. Minimized smiling with efficient heat dissipation.
Gel size: 90 x 80 x 1mm x 2 gels
Buffer volume: 340mL



AE-6530 miniPAGE chamber

High resolution separation of protein and nucleic acid. Minimized smiling with efficient heat dissipation.
Gel size: 90 x 80 x 1mm x 2 gels
Buffer volume: 500mL



Dual Mini Gel Cast

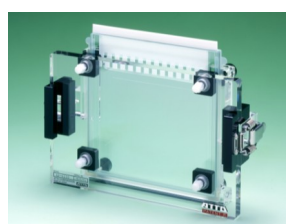
Gels can be easily prepared with a special seal gasket and clips. 2 pairs of glass plates, 2 gaskets, 4 clips, and 2 combs. Ready to cast two 1-mm or 0.75-mm 12-well gels.

ATTO Large Gel Size chambers



AE-6200 Slab EP Chamber

High resolution separation with simple operation.
Gel size: 138(W) x 130(H) mm x 1 gel
Gel thickness: 0.5 - 2.0 mm
Buffer volume: 650mL



AE-6210 Slab Gel Cast

Easy gel preparation with specially designed parts and seal gaskets. Including a pair of glass plates, a gasket, and a comb, ready to cast a 1 or 2 mm, 12-well gel.



AE-6220 Dual Slab Chamber

High resolution separation with simple operation.
Gel size: 138(W) x 130(H) mm x 2 gels
Gel thickness: 0.5 - 2.0 mm
Buffer volume: 930mL

2D-Gel Electrophoresis System

NEW!!



WSE-1500 DiscGel EP(DiscRun-R)

A mini PAGE system with a built-in power supply, agarGEL precast gel and a high level of reproducibility can be obtained 150-210 min. Simplified routines for ensured reliable operation.



AgarGEL

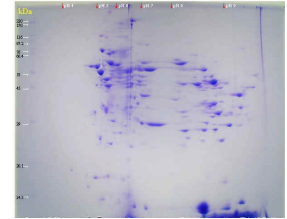
1-D precast gels for isoelectric focusing (IEF) and protein 2-D gel electrophoresis. Individual proteins are separated by isoelectric point (pI).



AE-6310 2D System

For full-scale proteome analysis (proteomics), purification product confirmation, and protein separation for mass spectrometry .

Gel size: 3.5 mm O..D. x 175 mm(1-D)
200 (W) x 180 (H) x 1.5 (T) mm (2-D)
Applied Sample: a few milligrams (MAX)



Electrophoresis pattern of Rat liver

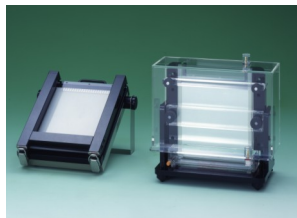
Other Types Gel Electrophoresis System



AE-6510 Resolmax Mini Slab

Temperature controlled PAGE system with buffer circulator (optional) .

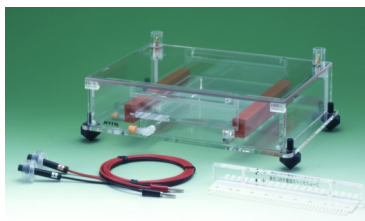
Upper and lower buffer circulation possible
Gel size: 90 x 80 mm, 0.75 mm in thickness
Number of samples: Up to 12 / gel



AE-6141 miniQuencer

Gel sandwich is backed by built-in aluminum heat sink, which is backed by water jacket, built-in and removable.

Agarose Gel Electrophoresis System



Submerged Agarose Gel Electrophoresis

Submerged, horizontal agarose gel electrophoresis is one of the primary tools for molecular biology, as an easy, economic and efficient technique for separation of nucleic acids as well as analysis of PCR-amplified fragments. UV transparent gel tray for ease of gel viewing. Comb teeth designed to provide sharp band. Buffer recirculation ports to afford recirculation or cooling of buffer to avoid interference in separation.

	AE-6100	AE-6111	AE-6125	AE-6133
Gel size (W x L)	80x100 mm	120 x160mm	150 x200mm	200 x150mm
Sample Comb	10 wells	26/13 wells (double) (well width 3/6 mm)	32/16 wells (double) (well width 3/6 mm)	42/21 wells (double) (well width 3/6 mm)
Buffer	300 to 500 mL	700 to 1200 mL	1300 to 1800 mL	1600 to 1900 mL

Semi-dry Blotting System



NEW!!

WSE-4020 HorizeBLOT 2M-R

Fast and efficient semi-dry blotting apparatus.
2 mini gels are available simultaneously.
Size of electrode: 205 x 100mm



NEW!!

WSE-4040 HorizeBLOT 4M-R

Fast and efficient semi-dry blotting apparatus.
4 mini gels are available simultaneously.
Size of electrode: 205 x 200mm



NEW!!

WSE-4110 PoweredBLOT-One

PoweredBLOT One is semi-dry blotting system with a built-in power supply.
Size of electrode: 95 x 98mm



NEW!!

AE-1465 EzFastBlot

Fast electrophoretic transfer (blots protein onto membrane in 5 to 15 minutes)

Power Supply



AE-8135 myPowerII 300

Small, compact power supply
1 - 300 VDC in 1V steps
1 - 400 mA in 1 mA steps
Automatic crossover
Max output: 50 W
Timer function with alarm
Size: 74x170x170mm



AE-8155 myPowerII 500

Small, compact power supply
1 - 500 VDC in 1V steps
1 - 200 mA in 1 mA steps
Automatic crossover
Max output: 25W
Timer function with alarm
Size: 74x170x170mm



AE-8800 Consta power 3000

Constant voltage, current, or wattage, with automatic crossover
5 - 3000 VDC
1 - 300 mA
1 - 300 W



NEW!!

WSE-3200 PowerStation III

Constant voltage, current or wattage with automatic crossover
10-1000V in 1 V steps
1 - 500 mA in 1 mA steps
1 - 200 W in 1 W steps
Various protection for safety & blackout
23 preset, 21 free set and 10 chain files
Timer and alarm function



NEW!!

WSE-3500 PowerStation HC

Large current output setting, automatic crossover
10 - 150 V in 1 V steps
0.01 - 3.00 A in 10 mA steps
1 - 200 W in 1 W steps
Various protection for safety & blackout
29 preset, 21 free set and 10 chain files
Timer and alarm function

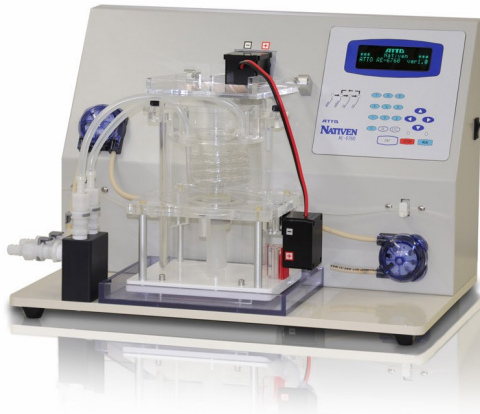
Automatic Gel Stainer



AE-6630 Automatic Gel stainer

For automatic staining of a gel or membrane, programmable with custom protocols: Polyacrylamide gel with silver staining or reverse staining, western-blot membrane, and Dot-blot membrane with immuno staining.
Ideal for increasing reproducibility and saving time and labor in your electrophoresis routines.

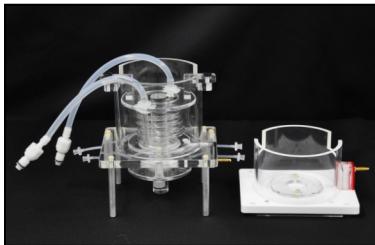
Fractionation & Purification System



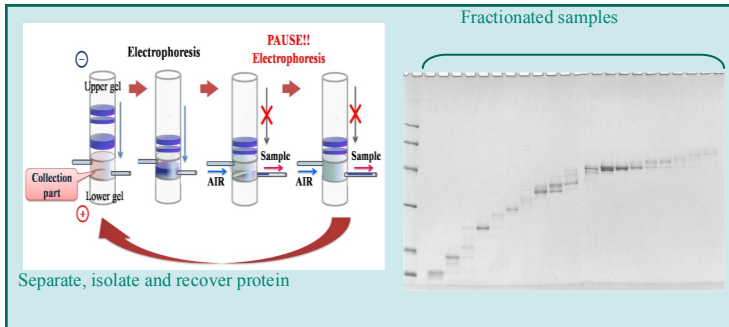
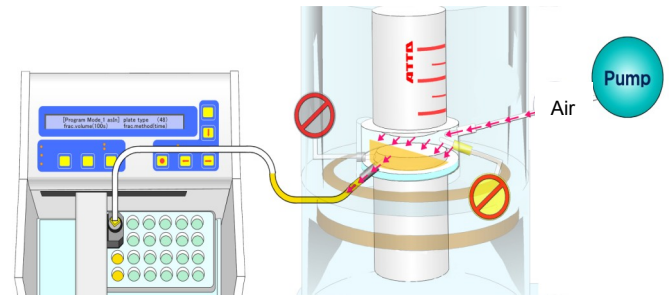
AE-6760S NATIVEN S / AE-6760L NATIVEN L

NATIVEN is automatic fractionation system of proteins or nucleic acids based on gel electrophoresis. In this system, automatic fractionation is accomplished by repeating the following processes, electrophoresis, recovery of separated proteins or nucleic acids by air pumping system, and re-filling of recovery solution. The eluted proteins or nucleic acids in the collection part are collected by air pumping system and fractionated into fraction collector. By introducing air pumping system eliminate the necessity of excess buffer to collect samples, and minimize dilution and contamination.

Chamber parts

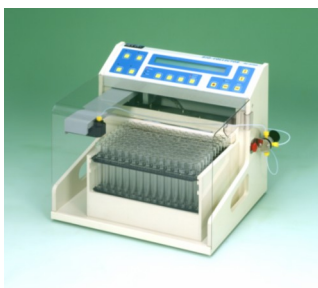


Column set



AB-1650 SupperStat Mini PID
Digital Temperature Controlled cooling Circulator.
Temperature control: -15 to +80 degreeC
Flow rate: Up to 3 L/min.

Fraction Collector



AC-5750 BioCollector

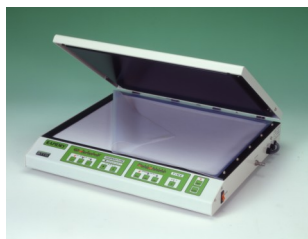
Compact, multi-functional fraction collector. Standardly 150 tubes/case (6mL) can be used, and optionally microplate (96/48/24/12 x 2), 20mL 70 tubes and 50mL 35tubes are available. Fractionation can be controlled by time or drop counting, delay and standby time, the number of collection cycles.



AC-5700 MicroCollector

Compact, intelligent fraction collector. Standardly 96 tubes (1mL) can be used, and optionally microplate (96/48/24/12), 3.5mL 48 tubes and 9mL 24 tubes are available. Fractionation can be controlled by time or drop counting, delay and standby time, the number of collection cycles.

Gel Dryer



AE-3750 RapiDry / AE-3711 RapiDry mini

RapiDry is a device that dries gel after electrophoresis into a sheet shape in the process of polyacrylamide gel electrophoresis. It dries gel died with pigment to store as a specimen or dries RI labeled samples for RI detection of electrophoresed gel.

Gradient Controller



AC-5900 Gradicon III

Gradient mixer. 10 Gradient pattern, 8 buffer switching mode, and 2 external pumps control units are available. Time: 1~999 min and 250 cycles can be set.

UV Monitor



AC-5100 UV Monitor

UV monitors to measure at 280 or 254 nm. AC-5100 is an economy type monitor featuring 0.0005 AU noise level, 0.0002 AU/h stability, 5 sensitivity ranges.



AC-5200 Mini UV Monitor

UV monitors to measure at 280 or 254 nm. AC-5200 is a high-grade type featuring 0.0002 AU noise level, 0.0005 AU/h stability, 9 sensitivity ranges.

Peristaltic pump / Related product



SJ-1211H Perista Pump

High Flow Rate
Single-Channel
Flow rate: 7 - 700 mL/h
20:1 flow rate variation



AC-2110 Perista Pump

Single or Dual Channel External Controllable
Flow rate: 10 - 1000 mL/h (one channel)
20:1 flow rate variation



AC-2120 Precision Perista Pump

Single channel
0.1 to 1000 ml/h
1000:1 flow rate control



SJ-1211L Perista Pump

Low Flow Rate
Single-Channel
Flow rate: 0.7 - 70 mL/h
20:1 flow rate variation



AC-9505 Gradient Mixer

A mixing unit incorporating a 3-way solenoid valve.
110V/230V
73x71x166mm



Gradicon III One Pump Set

0.1=10 ⁻¹	deci	d	one tenth of
0.01=10 ⁻²	centi	c	one hundredth of
0.001=10 ⁻³	milli	m	one thousandth of
0.000 001=10 ⁻⁶	micro	μ	one millionth of
0.000 000 001=10 ⁻⁹	nano	n	one billionth of
0.000 000 000 001=10 ⁻¹²	pico	p	one trillionth of
0.000 000 000 000 001=10 ⁻¹⁵	femto	f	one quadrillionth of
0.000 000 000 000 000 001=10 ⁻¹⁸	ATTO	a	one quintillionth of

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